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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/765,859

01/29/2004

Yoshinori Watanabe

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10/05/2007

OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.

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ALEXANDRIA, VA 22314

EXAMINER

BITAR, NANCY

ART UNIT

PAPER NUMBER

2624

NOTIFICATION DATE

DELIVERY MODE

10/05/2007

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/765,859

Applicant(s)

WATANABE, YOSHINORI

Examiner

Nancy Bitar

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,8,9 and 11-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,8,9 and 11-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 June 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 10/31/2006.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. The remark filed on 6/08/2007 has been entered and considered by examiner.
2. Claims 1-5 and 8,9,11-15 are pending.
3. Examiner accepts the amended Drawings.

Applicant's arguments, in the amendment filed 6/19/2007 with respect to the rejections of claims 1-11 under 35 U.S.C. 103 (a) have been fully considered but are moot in view of the new ground(s) of rejection necessitated by the amendments.

Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Kondo et al (US 6,934,414).

Applicants argue that Nagaya and Rui fail to suggest a) detecting a first frame containing a first frame covered background area and detecting a last frame containing a last frame uncovered background area; b) prompting a user to input a first frame contour of a first subset of the object to be extracted within the first frame covered background area and to input a last frame contour of a second subset of the object to be extracted within the last frame uncovered background area, respectively; and c) extracting the object from a plurality of frames from the first frame to the last frame based on the respective first and last frame contours. Those limitations were not recited in the previous presented claim.

Examiner Notes

4. Examiner cites particular columns and line numbers in the references as applied to the claims below for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested that, in preparing responses, the applicant fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5,8,9,11-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Kondo et al (US 6,934,414).

As to claim 1, Kondo et al. teaches an image processing apparatus(31) for extracting an object in an image, comprising;
image obtaining means for obtaining image data of a specified image (target frame processing unit 2 reads image data of a target frame serving as a predetermined frame of the image data stored in the storage 1, and performs processing on the target frame under the control of the processing control unit 7); motion analyzing means for analyzing motion of an object included in the image based on the obtained image data, including (motion detecting unit 6) :frame detecting means for detecting a first frame containing a first frame covered background area and for detecting a last frame containing a last frame uncovered background area (The motion detecting unit 6 integrates a before-frame buffer 61, reads the image data of the before-frame from the storage 1, and stored the read image data in the before-frame buffer 61. The motion detecting unit 6 performs motion detecting processing (such as block matching) for the image data of the before-frame, which is stored in the before-frame buffer 61 and for the image data of the target frame, which is stored in the target frame buffer 21 in the target frame processing unit 2, thereby detecting the motion vector and supplying it to the processing control unit 7; note that the background buffer 22 stores the remaining image data, as a background image, other than the stored portion in the object buffer 23);means for prompting a user (note that extracting an object from a target frame in based on a user's input)to input a first frame contour of a first subset of the object to be

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extracted within the first frame covered background area and to input a last frame contour of a second subset of the object to be extracted (object extraction unit 3) within the last frame uncovered background area, respectively; and object extracting means for extracting the object from a plurality of frames from the first frame to the last frame based on the respective first and last frame contours (boundary detection section, 31)

As to claim 2, Kondo et al. teaches an image processing apparatus according to claim 1, wherein the motion analyzing means includes: motion computing means for computing the motion of the object in the image relative to a background; and area determining means for determining the first frame covered background area and the last frame uncovered background area based on the motion computed by the motion computing means (the object extracting unit 3 fundamentally detects the boundary portion in the target frame and extracts a area surrounded by the boundary portion as the object, see figure 5)

As to claim 3, Kondo et al. teaches an image processing apparatus according to claim 2, wherein the image presenting means displays the first frame covered background area and the last frame uncovered background area (The display unit 5 displays both the image outputted by the selector 24, that is, the target-frame image, the background image, or the object image, and the image stored in the result buffers 33A to 33C in the result processing section 33, column 6, lines 27-32).

As to claim 4, Kondo et al. teaches an n image processing apparatus according to claim 2, wherein the motion computing means includes distance computing means

for setting a plurality of feature points in the image and computing distances between adjacent feature points (see figure 13).

As to claim 5, Kondo et al. teaches an image processing apparatus according to claim 4, wherein the area determining means includes: comparison means for comparing a distance between the-adjacent feature points in a temporally prior frame with a distance between adjacent feature points in a temporally subsequent frame, the distances being computed by the motion computing means (The motion detecting unit 6 detects a motion vector which is based on the image of the before-frame which is before the target frame, under the control of the processing control unit 7, and supplies the detected motion vector to the processing control unit 7) ; and setting means for setting, based on a comparison result obtained by the comparison means, in the background of the image, the first frame covered background area as an area that is gradually covered by the object and the last frame uncovered background area as an area that gradually changes from being covered to being non- covered by the object (figure 21) note that a change display button 201, a use record button 202, a delete partly button 203, and an undo button 204 are provided on the lower right of the reference screen)

As to claim 8, Kondo et al. teaches an image processing apparatus according to claim 1, further comprising object displaying means for displaying the object extracted by the object extracting means (display unit 5, figure 3).

Claims 9, 12-15 differ from claims 1-5 only in that claim 1-5 are system claims whereas; claim 9 is a method claim. Thus, claims 9,12-15 are analyzed as previously discussed with respect to claims 1-5 above.

Claim 11 differs from claim 1 only in that claim 1 is a system claim whereas; claim 11 is a computer claim. Thus, claim 11 is analyzed as previously discussed with respect to claim 1 above.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nancy Bitar whose telephone number is 571-270-1041. The examiner can normally be reached on Mon-Fri (7:30a.m. to 5:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Samir Ahmed can be reached on 571-272-7413. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nancy Bitar

9/17/2007


SAMI AHMED
PRIMARY EXAMINER